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ABSTRACT

Is college student academic performance harmed by competing employment obligations? At what point do the hours spent on the job begin to interfere with the predicted academic achievement of full-time students? This study addresses these questions by analyzing data collected from students at two non-residential community colleges. Using an outcomes model that treats student grade point average (GPA) as a product of pre-college variables on the one hand and of campus experiences and student effort on the other, both descriptive statistics and multivariate analysis are used to examine the impact of hours of employment on student grades. The results suggest that: (1) there is not a relationship between hours of employment and student outcomes, such as GPA, even among younger students; (2) even high levels of employment do not seem to have a negative impact; and (3) the hours spent in academic study appear to be more influential than the hours spent working. Contains 19 references. (Author/KM)

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THE IMPACT OF EMPLOYMENT ON THE ACADEMIC ACHIEVEMENT OF FULL-TIME COMMUNITY COLLEGE STUDENTS

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ABSTRACT

Is college student academic performance harmed by competing employment obligations? At what point do the hours spent on the job begin to interfere with the predicted academic achievement of full-time students? This study addresses these questions by analyzing data collected from students at two non-residential community colleges. Using an outcomes model which treats student Grade Point Average as a product of pre-college variables on the one hand and of campus experiences and student effort on the other, the research uses both descriptive statistics and multivariate analysis to examine the impact of hours of employment on student grades. The results suggest that (a) there is not a relationship between hours of employment and student outcomes, such as GPA, even among younger students; (b) even high levels of employment do not seem to have a negative impact; (c) the hours spent in academic study appear to be more influential than the hours spent working. These results have implications for assessment researchers, faculty advisors, and professional counselors.

THE IMPACT OF EMPLOYMENT ON THE ACADEMIC ACHIEVEMENT OF FULL-TIME COMMUNITY COLLEGE STUDENTS

INTRODUCTION AND CONCEPTUAL FRAMEWORK

Many students undertake relatively heavy part-time employment during their high school years and continue to work as college students (Wirtz, et. al., 1987). In many regions of the United States, there now exists an abundance of employment opportunities in the relatively lower paying service, clerical and laborer positions. These positions represent the traditional employment strongholds for the younger college age student. Record numbers of teenagers now work, and the average number of hours they work has reached an all time high. (Wirtz, et. al., 1987). This trend, along with recent cutbacks in federal financial aid programs and rising college costs may make academic study and employment more interdependent, thus competing for students' priorities. The economic environment influences students decisions about pursuing a college degree, their choice of institution, the financial burden each is willing to assume to pay for a college education, and their employment levels while enrolled in college (Ehrenberg and Sherman, 1987).

The ubiquitousness of student employment, particularly at community colleges, raises interesting and important questions regarding its impact on such aspects of a college education as academic adjustment, achievement, satisfaction, and retention rates. Educators should understand student employment within the context of changing student roles that incorporate more than the purely academic.

A relatively extensive literature, primarily in the late sixties and early seventies, had previously addressed the issue of how work, while in college, affects academic performance and persistence. A review of some of those studies generally indicates that up to 15 hours of student employment per week, does not consistently affect grade point average (Hammes and Haller, 1983; Dallan and Hoyt, 1981; Apostal and Doherty, 1972; Kaiser and Bergen, 1968; Merritt, 1970). Most studies on working versus non-working students and academic load carried show little or no difference.

A 1984 study by the Carnegie Foundation for the Advancement of Teaching analyzed the working patterns of college students and found significant differences by major, by age, and by public vs. private. Those working were more likely to be attending a public two-year college part-time and to be above the traditional college age. The study, however, failed to separately analyze the employment of full-time students.

A recent article in Change reports data from the 1984 Carnegie study regarding student employment, and discusses the tension between working and learning (McCartan 1988). While some studies have suggested a negative relationship, others have failed to find a pattern between students' performance and their employment. Still others have suggested that working up to 20 hours a week, especially on-campus, is positively associated with persistence and achievement.

The issue is an especially important one for community colleges since a relatively small proportion of their students work on campus. Moreover, the Carnegie and UCLA data suggest that substantial numbers of two year college students work more than 20 hours per week.

Most of the research on the effect of work on academic achievement and persistence has been with students who typically work on campus less than fifteen or sixteen hours per week. There is little investigation into the impact of greater amounts of work off-campus (Hood and Maplethorpe, 1980), but some researchers, such as Henry (1967) warned of negative effects of employment that exceeded 15 hours per week for full time students. Studies by Hay and Lindsay (1969) supported Henry's contentions by finding that students working more than fifteen hours per week generally earned lower grade point averages. A more recent study (Ma and Wooster, 1979) showed that employment of more than 16 hours per week had adverse effects on the students' course work. Astin's (1975) work indicated that both off campus work and working more than twenty hours per week was negatively associated with student persistence. Finally, a recent article argues that longer work weeks for

current students caused by increased college costs and less than proportionate financial aid packages, should lend to greater dropout rates and reduced rates at which non-dropouts graduate "on time" (Ehrenberg and Sherman, 1987).

There are few studies of the impact of employment on the academic achievement and retention of community college students. Yet a national study by ACT of public two year colleges found that conflict between classes and a job was the single most significant factor in student attrition (Beal and Noel, 1980). A survey of a large sample of community college students by the Texas Education Agency (1977) found that conflict with hours of employment was one of che five most frequently cited reasons for course withdrawals.

Student employment is a crucial variable in profiling the modern college student and deserves a greater focus in the literature. The conflicting nature of prior research on the effects of student employment, as well as recent evidence that student employment has increased, indicate a need for renewed research in this area.

Drawing upon the issues raised in the literature, this study was conducted to examine the relationship between student employment and various educational outcomes among community college students. What is the relationship between college grades and the employment commitments of students? Controlling for prior achievement and other relevant variables, do the hours spent on the job compete with study obligations in such a way as to harm academic performance?

This study then addresses these Research Questions:

1. How much do full-time community college students work for pay each week on average?
2. Why do full-time students work? What reasons do they give for undertaking employment?

3. Do high levels of employment by full-time students have a negative impact on various educational outcomes? In other words, is there a significant negative relationship between weekly hours of employment and student GPA, intellectual growth, satisfaction, and course completion?
4. Are high levels of employment more detrimental to the academic performance and educational outcomes of younger students?

METHODOLOGY

For our research, we formulated a modified **systems model** shown in Figure 1. The **input** (background), **process** (current activity), and **output** (outcomes) variables used in this study are listed and defined. The outcomes of college are viewed as resulting in part from the campus experience and in part from pre-college variables and personal traits.

As **inputs**, the relevant backgound variables include age, gender, and high school grades. Current **process** information about the students includes enrollment status, academic major, the perceived importance of their employment, and the ways in which they spend their time. (We asked the students to indicate, on average, the number of hours per week they spend at employment activities, studying for courses, taking care of children and family and social/recreational activities.) Four **output** variables also are listed in Figure 1. While we gathered information about student satisfaction, perceived intellectual growth, and course completion rates, the prime focus of the resarch is on their academic performance.

The data were gathered from 649 students in two community colleges located in Upstate New York, one near Albany and one in the mid Hudson Region. A questionnaire, which was designed to consume only five to seven minutes of time, was administered in Spring 1988 to students attending randomly selected classes in each academic division and major area represented at the colleges. Students who may have filled out the questionnaire in

another class were prevented from completing it more than once. We examined the populations from the two colleges for differences in age, sex, major, class year, hours of employment, and grade point average. There are no significant differences between the two college populations, therefore, for the purposes of this study, the samples are combined.

Approximately sixty percent of the sample is female and forty percent male. In addition, almost two-thirds of the population is between the traditional college ages of 18 and 22. The status of the students revealed an almost even split between sophomores and freshmen. Finally, the student subjects are drawn from all ten general academic subject areas represented at the colleges with the largest group (just over 30%) coming from the business/accounting/secretarial field.

The number of credit hours or course load represented in the sample population shows that by a margin of about two-to-one, students were enrolled full-time (12 or more credits). Our investigation concentrates on this full-time group.

RESULTS

Research Question #1

How much do student work? Table 1 shows the average employment hours per week for the Community College students in our sample. More than 8 out of 10 students reported some degree of employment. As expected, almost half the part-time students held the equivalent of a full-time job while few full-time students did so. Among the full-time students, 54.3% worked 20 hours or more. Only 7.8% of full-time students worked a 40 hour week, thus earning the dual status of full-time student and full-time employee (although another 16.8% worked 30-39 hours). While full-time students averaged 18.7 hours per week of employment, the ones who actually worked averaged 23 hours.

These results are not strictly comparable to those discussed by McCartan (1988) since her review failed to describe the separate patterns of full-time versus part-time students.

Research Question #2

What reasons do students give for working? We were surprised by the results of Table 2 which shows that **full-time** students rank personal and social expenses as the most important reason for their hours of employment and part-time students rank it second. While this finding is consistent with the dissertation research by Scott Schnackenberg (1988), we expected career and financial aid considerations to rank higher. 36% of full-time students rank personal/social expenses first in their reasons for working, and 29% rank it second. 24% rank college expenses first, and 34% rank it second. Providing family support and meeting college expenses were comparatively high priorities for **part-time** students with 45% rating them first or second. Our results suggest that developing an employment record and career experience is not a relatively important reason for most student employment. Part-time students appear to be much more utilitarian than full-time students in their reasons for working.

We are interested in the value placed on employment versus college by the students so we asked them to indicate which is more important. Table 3 shows that few full-time students rated their work as more important than college but between 30% and 40% rated their work to be just as important. This finding seems to support the notion of a conflict in priorities among a certain number of students (McCartan 1988).

Research Question #3 & #4

What is the relationship between employment and performance among full-time students and are high levels of employment more detrimental to younger students? Table 4 shows the correlation coefficients between hours worked and four outcomes measures. In view of the literature, we expected to find strong negative relationships reflecting the tension between working and learning. We are especially interested in the relationship between employment and GPA because we hypothesized that any negative effects would be most visible there. While employment is negatively associated with student GPA,

the correlation is low and insignificant. The same is true for growth and satisfaction. The correlation with the rate of course completion is positive but insignificant. We looked for a curvalinear relationships but failed to find any.

We also suspected that older students are more experienced at balancing the competing demands of the classroom and the workplace, and that younger students might have more trouble in college if they work a good deal. Table 5 displays the percent earning high, medium, and low GPAs categorized by age and hours of employment. These data suggest that employment above 20 hours per week is slightly more detrimental to the academic performance of students under 20 years of age.

Thus far, we have not controlled for the other pre-college and college variables which potentially influence GPA and the other outcomes variables. Therefore, we performed a series of regression analyses using each of the four outcomes variables as dependent, and dropping out of the analysis those variables which failed to show a strong association with the dependent variable. Table 6 displays the regression beta weights resulting from this procedure. Four variables are more influential in predicting GPA and growth in knowledge than hours of employment. College GPA, as expected, is most strongly associated with high school GPA (.32) and age (.28). The hours spent studying is significant and positive (.15), and the importance placed on employment has a significant negative association with GPA (-.15). The four significant variables account for 23% of the variance in GPA.

Regarding the regression for growth in knowledge, the influence of work once again is outweighed by the four other variables. In this case, the hours spent studying are the most strongly associated with growth, but only 12% of the variance is accounted for. The regressions for the other two outcomes variables account for a very small proportion of the variance.

Similar regression analyses were performed for the population under age 20, since we wanted to examine the pattern of relationships for the younger students. The results, shown in Table 7, are roughly similar to Table 6. In each of the four regressions, the employment variable has the smallest beta weight. High school GPA is the most strongly associated with college GPA, and hours spent in academic study is the variable most significantly related to the growth scale.

CONCLUSION

The results of this study have implications for assessment research, for teaching, and for advisement and counseling activities, especially at Community Colleges. While students may indeed need assistance in meeting both academic and employment obligations, our data suggest that most students find the right balance.

Over 81% of our full-time community college student population is employed an average of 23 hours per week. The most common reason given for their employment is to meet personal and social expenses. This study finds no consistent nor significant relationship between student work obligations and four outcomes measures. Even younger students appear to strike a balance between working and learning. We were especially interested in the relationship between the academic performance and employment obligation of full-time community college students. We used cumulative grade point average as a convenient indicator of performance and accounted for about one-fourth of the variance. We were less successful with the other three outcomes measures, probably because of their crudeness. Growth and satisfaction were reported on a single five point scale; and the single semester course completion rate is not as good as a multi-semester measure of persistence would be.

Nevertheless, our data strongly suggest that the grades students earn and the growth they report is far more influenced by the hours they spend in academic study than by the hours they spend working for pay. Obviously, there are limits on one's time but these students seem to be maintaining a balance between work and study.

One explanation for the results, therefore, is that students are working only the number of hours which fill up "free" time, and most are wise enough to avoid overcommitment. Evidence to support this explanation is that full-time freshman worked fewer hours in the fall than in the spring semester. After their academic experience in the fall, they perhaps learned that they could handle more employment.

A second explanation is less kind, and suggests that their academic course work is not very demanding. Perhaps professors are not requiring very much preparation outside of class, thus allowing students to undertake a good deal of employment. Some support for this explanation is found in Table 2. Full-time students are working to meet personal and social expenses, not to support a family or to pay for college.

A third related reason behind the results may be found in the reality of today's enrollment driven budgets. Community college faculty may be reluctant to drive students away by rigorous requirements. Stated more positively, faculty may have gradually adjusted their academic demands to accommodate the large number of their students who work.

Finally, we were encouraged by the relationship between academic study and student performance and growth. Student advisors and faculty should take every opportunity to help students see the connection between effort and learning. Moreover, future assessment studies should include student effort as a control variable when examining the outcomes of the college experience.

FIGURE 1

MODEL OF ACADEMIC ACHIEVEMENT AMONG COMMUNITY COLLEGE STUDENTS

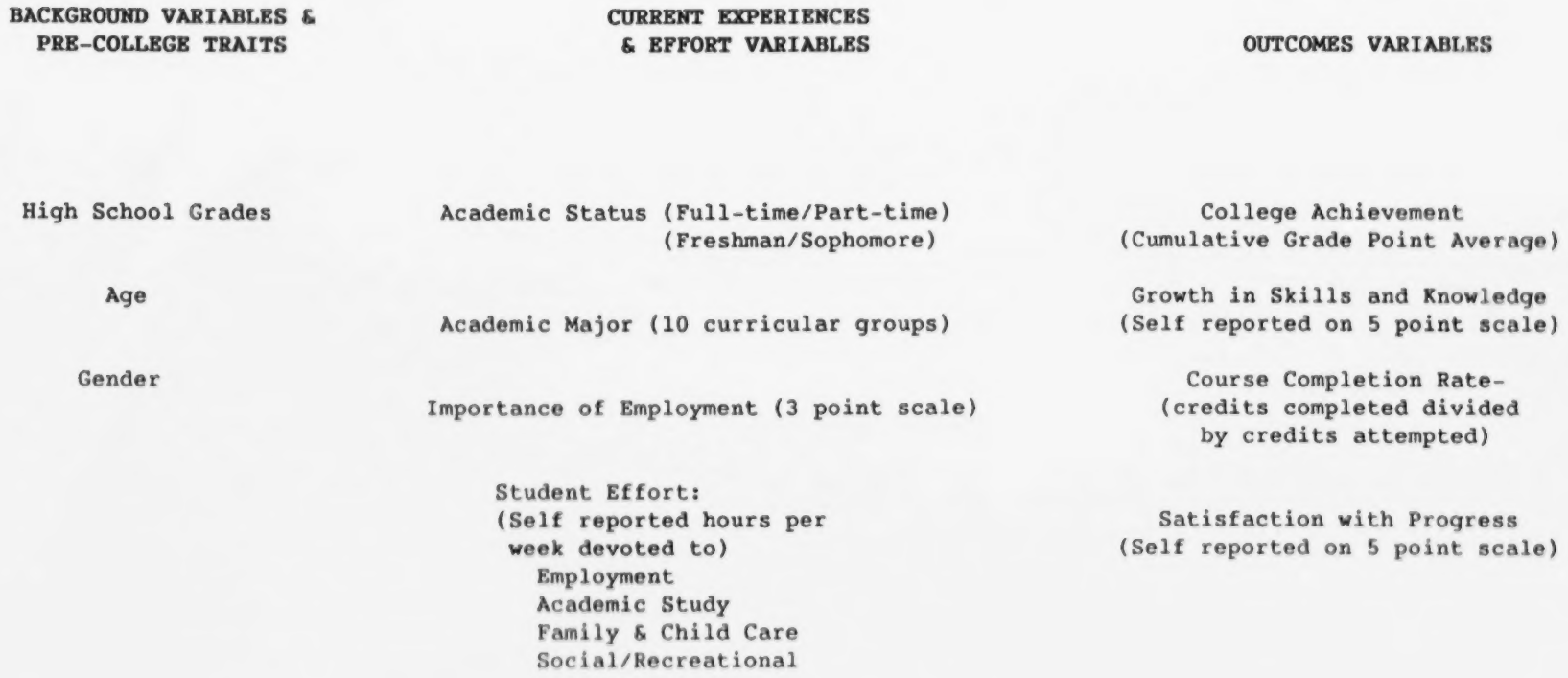

TABLE 1

Hours of Employment by Full-Time and Part-Time Community College Students

Hours of Employment (Weekly Average)	Full-time Students Number	Full-time Students Percent	Part-time Students Number	Part-time Students Percent
None	81	18.6%	36	16.8 %
1-9	26	6.0	8	3.7
10-19	92	21.1	21	9.8
20-29	129	29.7	24	11.2
30-39	73	16.8	23	10.7
40+	34	7.8	102	47.7

Average Hours Worked per Week:	Full-time	Part-time
For All Students:	18.7	29.1
For All Students Who Worked:	23.0	35.0

TABLE 2

Reasons for Working Comparative Rankings

	For Full-time Students (N = 435)		For Part-time Students (N = 214)	
	Average Rank	Percent #1	Average Rank	Percent #1
Personal/Social	2.16	36	3.12	11
College Expenses/Fin. Aid	2.38	24	2.33	22
Career Enhancement	2.75	17	2.58	16
Family Support	3.14	20	2.50	31
Other	4.07	4	3.83	7

TABLE 3

Full-time Students Classified by the Hours Worked and the Importance of Employment

	Hours Worked		
Importance of Employment	0-9	10-19	20+
More Important than College	2	2	12
Just as Important as College	33	45	55
Less Important than College	62	105	71

Chi Square = 16.5**

TABLE 4

Correlation Between Weekly Hours of Employment and Four Outcomes Measures among Full-time Community College Students

Outcomes Measures	Correlation with Hours Worked
Grade Point Average	- .09
Growth in Knowledge	- .04
Satisfaction w/Progress	- .08
Course Completion Rate	.07

TABLE 5

Percent of full-time students earning high, medium and low GPAs classified by Age and Hours Worked

Age:	Young (Teenagers)		Older (20+)	
Work:	Low	High	Low	High
GPA: Low (below 2.5)	29	33	9	7
Med. (2.5-3.0)	46	51	32	40
High (3.1 +)	26	16	59	53

TABLE 6

Regression Beta Weights for Outcomes Measures
for 435 Full-time Community College Students

	College GPA	Growth in Knoweldge	Satisfaction with Progress	Course Completion Rate
High School GPA	.32***	.11*	.04	-.03
Age	.28***	.19***	.13*	.01
Importance of Employment	-.15**	-.08	-.13*	.09
Hours Spent Studying	.15**	.22***	.00	.05
Hours Spent Working	-.02	-.02	-.06	.06
R^2 =	.23***	.12***	.04*	.02

TABLE 7

Regression Beta Weight for Outcomes Measures
for 214 Full-time Younger Community College Students

	College GPA	Growth in Knoweldge	Satisfaction with Progress	Course Completion Rate
High School GPA	.42***	.18*	.08	.24**
Importance of Employment	-.19**	-.03	-.13	-.03
Hours Spent Studying	.09	.22**	.08	.07
Hours Spent Working	-.08	-.01	-.06	-.02
R^2 =	.25***	.10***	.04	.07*

* = .05
** = .01
*** = .001

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